



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/679,323	10/07/2003	Masahiro Inoue	Q77822	2674
23373	7590	07/16/2007	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			WEST, LEWIS G	
		ART UNIT	PAPER NUMBER	
		2618		
		MAIL DATE	DELIVERY MODE	
		07/16/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/679,323	INOUE, MASAHIRO
	Examiner Lewis G. West	Art Unit 2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 25 May 2007.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-8 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 25 May 2007 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_.

***Response to Arguments***

Applicant's arguments filed May 25, 2007 have been fully considered but they are not persuasive. First, there are no rejections under 35 USC 102(b), therefore these are moot and irrelevant. When view in terms of 35 USC 103(a) the arguments are still unpersuasive, because as previously explained, the type of the device does not affect the adhesive connection which is the relevant portion of the claim, any type of device could be adhered using the claimed adhesive and it would make no difference. This does, contradictory to applicant's assertion, consider the invention as a whole, as the rejection, which is under 103, not 102, considers what one of ordinary skill in the art at the time of the invention would have taken into consideration in viewing the prior art to carry out the adhesion.

Further there is clearly a protruding portion in Fisher's Figure 4, which is clearly shown and outlined by the dotted line portion, and there is adhesive only on the circumferential portion. So this argument is also unpersuasive.

Applicant's arguments having been fully addressed, this action is made final and prosecution of this application is now closed.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher (US 4,931,805).

Regarding claim 2, Fisher discloses a Dedicated Short-Range Communications (DSRC) on-board unit with an adhesive material comprising: an antenna (15) for communicating with roadside radio equipment (see col. 2 lines 10-13, cellular communications would involve communicating with a base station radio equipment, which could be roadside, and as the location of the equipment is merely an intended use and as no roadside equipment is positively claimed, the limitation is met by the art); a housing (outside engaging portion 13) in which only said antenna is housed (Col. 2 lines 35-47); and an adhesive material (in the context of this claim, both the silicon gel adhesive 34 and the double sided tape adhesive 32, or the combination of the two, read on this limitation) having a first surface affixed to said housing and a second surface for affixing to a vehicle window (Col. 2 lines 48-67), wherein: a protruding portion engaged with said adhesive material is disposed on said housing. (see Figure 4, wherein the silicon adhesive is engaged with a protruding portion of the device to be mounted by being applied to channel 30) wherein said antenna, said housing, and said adhesive material constitute said DSRC. While a device specifically conforming to DSRC protocols is not expressly disclosed, Fisher discloses the claimed physical structure otherwise. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use DSRC in order to conform to an existing protocol to expand the interoperability of the device.

Regarding claim 8, Fisher discloses the Dedicated Short-Range Communications (DSRC) on-board unit with an adhesive material according to claim 1, wherein only a circumferential portion of the protruding portion is in engaged with the adhesive, (Figure 4).

Claims 1, 3-5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher (US 4,931,805) in view of Baratono (US 6,549,793).

Regarding claim 1, Fisher discloses a Dedicated Short-Range Communications (DSRC) on-board unit with an adhesive material comprising: an antenna (15) and a radio portion a data processing portion (cellular phone) for communicating with roadside radio equipment (see col. 2 lines 10-13, cellular communications would involve communicating with a base station radio equipment, which could be roadside, and as the location of the equipment is merely an intended use and as no roadside equipment is positively claimed, the limitation is met by the art) a housing (outside engaging portion 13) in which at least antenna is housed (Col. 2 lines 35-47); and an adhesive material (in the context of this claim, both the silicon gel adhesive 34 and the double sided tape adhesive 32, or the combination of the two, read on this limitation) having a first surface affixed to said housing and a second surface for affixing to a vehicle window (Col. 2 lines 48-67), wherein: a protruding portion engaged with said adhesive material is disposed on said housing. (see Figure 4, wherein the silicon adhesive and tape are engaged with a protruding portion of the device to be mounted by being applied to channel 30) wherein said antenna and radio portion, said data processing portion and said adhesive material constitute said DSRC on-board unit, but does not expressly disclose that the said radio portion, and said data processing portion may be mounted in the attached housing with the antenna. While a device specifically conforming to DSRC protocols is not expressly disclosed, Fisher discloses the claimed physical structure otherwise. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use DSRC in order to conform to an existing protocol to expand the interoperability of the device.

Baratono discloses an adhesive mounted on-board communication device including an antenna, a radio portion and a data processing portion for processing received data from the radio portion wherein the radio portion is mounted in the same housing with the antenna. (Col. 2 lines 50-55). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to include the radio and processing portions in the mounted device, as is suggested in Baratono (Col. 4 lines 24-32) that all communications circuitry, may be included in the same housing or certain portions may be placed elsewhere in the vehicle. Therefore it would have been reasonable to use the advantages of either situation, while the structure in Fisher would provide for more possibilities in antenna placement, it would also have been apparent to one of ordinary skill in the art that combining all circuitry in one device would provide for easier manufacturing.

Regarding claim 3, the combination of Fisher and Baratono discloses the Dedicated Short-Range Communications (DSRC) on-board unit with an adhesive material according to claim 1, wherein: said protruding portion is fitted into an aperture formed on said adhesive material. (See Fisher, Figure 4, wherein the adhesive layer, which includes the silicon and tape, form an aperture within which a protruding portion of the housing resides)

Regarding claim 4, the combination of Fisher and Baratono discloses the Dedicated Short-Range Communications (DSRC) on-board unit with an adhesive material according to claim 1, wherein: a height of said protruding portion is less than a thickness of said adhesive material. (See Fisher, Figure 4, wherein the adhesive layer, which includes the silicon and tape, form an aperture within which a protruding portion of the housing resides, and this protruding portion is narrower in thickness than the height of the silicon gel adhesive)

Regarding claim 5, the combination of Fisher and Baratono discloses the Dedicated Short-Range Communications (DSRC) on-board unit with an adhesive material according to claim 1, wherein: a leading end surface of said protruding portion is a flat surface. (See Figure 4 of Fisher, the portion of the protrusion adhered to the double sided tape is flat.)

Regarding claim 7, the combination of Fisher and Baratono discloses the Dedicated Short-Range Communications (DSRC) on-board unit with an adhesive material according to claim 1, wherein only a circumferential portion of the protruding portion is in engaged with the adhesive, (Figure 4).

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher (US 4,931,805) in view of Baratono (US 6,549,793) and further in view of Wunderlich (US 4,931,806).

Regarding claim 6, the combination of Fisher and Baratono discloses the Dedicated Short-Range Communications (DSRC) on-board unit with an adhesive material according to claim 1, but does not address how antenna adjustments are made. Wunderlich discloses a communication with an antenna in the adhesively mountable section wherein the antenna characteristics are matched by adjusting a shape of said antenna. (Col. 6 lines 5-17) Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to adjust the antenna characteristics by changing the shape, as the nature of antennas dictates that size and shape determine their characteristics, and by changing the shape to improve these characteristics may reduce loss and unwanted radiation at the device as well as improving the received signal.

Art Unit: 2618

(See Wunderlich col. 5 lines 12-17) and Wunderlich further expresses that it incorporates the structure of the Fisher reference (see col. 3 lines 26-41)

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lewis G. West whose telephone number is 571-272-7859. The examiner can normally be reached on Monday-Friday 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Lewis G. West  
Primary Examiner  
Art Unit 2618